



FLORIDA

Introduction and General Description

The Partners for Fish and Wildlife program is a voluntary private lands initiative developed to provide technical and financial assistance to private landowners and other partners who conduct habitat restoration and improvement activities on their land.

The focus of the Partners Program in Florida is on restoration of native habitats (i.e., longleaf pine, sandhill scrub), restoration of degraded streams and wetlands, and eradication of invasive, exotic species.

The Partners Program also provides technical assistance to the U.S. Department of Agriculture (USDA) and to landowners participating in conservation programs administered by USDA under the Farm Bill (e.g., Wetlands Reserve Program and Conservation Reserve Program).

The Partners Program in Florida has been active since 1996 and has received overwhelming acceptance by private landowners. To date, 43 private landowners have restored 9,228 acres and the Partners biologist has conducted over 100 technical assistance visits to assist private landowners with habitat management. The result has been an innovative partnership between the Federal government and the private landowner which

provides habitat benefits to Florida's fish and wildlife.

Florida Activities

- T Sandhill scrub restoration
- T Longleaf pine restoration
- T Exotic species control
- T Wetland restoration
- T In-stream restoration
- T Riparian fencing
- T Threatened and endangered species habitat improvement

Habitats of Special Concern

The Partners Program has worked with private landowners to restore and enhance habitat for Florida's only endemic bird, the Florida scrub-jay.

The scrub-jay depends on the xeric



Florida scrub-jays

scrub ecosystem. This high and dry land is very desirable for residential and commercial development as well as agricultural uses such as grazing and citrus

production. The plight of the scrub-jay clearly demonstrates the relationship between habitat loss and species decline; however, partnerships with organizations such as the St. Johns River Water Management District, The Nature Conservancy, and Volusia and Brevard Counties in Florida have led to Partners projects that will result in over 2,500 acres of restored or enhanced sandhill scrub habitat.

Threats

Habitat Loss

When Spanish explorers dropped anchor in Florida waters nearly 500 years ago, Florida was essentially one large natural area that also supported a population of about 100,000 Native Americans. Wildlife roamed freely across 35 million acres in search of food, water, and shelter. The road system in pre-Columbian times consisted of narrow foot paths that were used by panthers, bobcats, and black bears, as frequently as by Native Americans. The few human edifices that were present quickly gave way to a surrounding landscape of tall majestic trees, most hundreds of years old, and extensive prairies and marshes (Cox *et al.* 1994).

Today, many species are caught in a state of siege as the habitat

needed to sustain wildlife populations rapidly disappears. In the last 50 years more than 8 million acres of forest and wetland habitats (about 24 percent of the State) were cleared to accommodate an expanding human population. Based on 2000 census results, Florida's population is 16 million (up 3 million from 1990), and that number is growing by 833 people per day (net). As human populations continue to grow, increased demands will be placed on Florida's remaining natural systems, and wildlife populations will be forced into smaller and smaller areas as a result (Cox *et al.* 1994).

Conservation Strategies

Conservation Partnerships

The Suwannee River is one of Florida's most pristine rivers and has been identified as a priority area by the U.S. Fish and Wildlife Service's North Florida Ecosystem Team. The river supports the largest breeding population of the federally listed Gulf sturgeon and is essential to the recovery of this species. Increased development pressures and high nutrient inputs from urban and agricultural sources are threatening this river system. To assist in the preservation of this historic river, the Partners Program reached across agency lines to



The Suwannee River

initiate the creation of the

Suwannee River Private Lands Initiative (SRPLI).

The SRPLI is a multi-agency partnership between the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, the Suwannee River Water Management District, Florida Division of Forestry, Florida Fish and Wildlife Conservation Commission, Florida Department of Agriculture, and the Natural Resources Conservation Service.

The goals of the group are to assist private landowners located in the Suwannee River Basin with the development of land management plans that target the reduction of nutrient inputs into the river, the management of sustainable resources in an environmentally compatible manner, and the improvement of fish and wildlife habitats. The SRPLI provides technical and financial resources to landowners with management plans to help them implement conservation practices aimed at improving fish and wildlife habitat. Additionally, the SRPLI improves delivery of Federal, State, and local programs to private landowners by serving as a single source of information for technical and financial assistance opportunities.

Wetlands

Historically, Florida wetlands were viewed as an obstacle to progress. Until the 1970s, wetland drainage and destruction were accepted practices that were often encouraged by certain government agencies. Today, wetlands are viewed as some of the most biologically productive habitats within the State. Coastal wetlands

serve as nursery areas for many economically important marine species, while other wetland areas provide feeding, breeding, and sheltering areas for numerous other fish and wildlife species.

The Partners Program is assisting private landowners in their efforts to restore degraded wetlands. Since 1996, 5,123 wetland acres have been restored for the benefit of Florida's unique wildlife. Many of these projects simply involve plugging ditches that were designed to drain the site, while others involve the extensive use of heavy equipment to install water control structures and restore the site's microtopography. The cost of wetland restoration projects average \$600 per acre.

The Partners Program also works hand-in-hand with the Natural Resources Conservation Service to implement the Wetlands Reserve Program. Florida currently ranks sixth nationally in acres enrolled in the WRP, with over 51,000 acres of degraded wetlands being restored for the benefit of Florida's fish and wildlife.

Streams and Riparian Areas

Florida streams and rivers are home to many fish and wildlife species. Many of these streams have become degraded due to human influences. The Partners Program is working with ranchers and other private landowners to establish conservation buffers. Conservation buffers are vegetative strips that help improve and nutrient inputs into Florida

water quality by reducing sediment streams and rivers. In some of the more degraded streams, Partners biologists have used in-stream techniques to re-design impacted stream channels to stabilize the stream to reduce erosion and improve fish and wildlife habitat. Riparian buffer projects typically cost \$2 to \$4 per foot. Costs for in-stream restoration projects range from \$25 to \$40 per foot.

Sandhill Scrub

Florida's ancient sandhill scrub once covered approximately 7,000 square miles. Today less than 600 square miles remain. Conversion of land for agricultural, residential and commercial development, and fire suppression have combined to jeopardize the long-term survival of this ecosystem.

The Partners Program is working with local governmental organizations and private landowners to restore or enhance Florida's remaining sandhill scrub habitat. The Partners Program is currently working on projects that will lead to the restoration of nearly 2,000 acres of sandhill scrub habitat in Brevard, Charlotte, Martin, Osceola, Polk, and Volusia, Counties. Restoration costs for sandhill scrub projects average \$100 to \$500 per acre; however,



Sandhill scrub habitat.

costs can exceed \$1,000 per acre when extensive mechanical work is required.

Native Forest

The longleaf pine ecosystem once covered approximately 90 million acres in the southeast United States. Today, less than 3 million acres remain, mostly in the coastal plains of the Carolinas, Georgia, Florida, Alabama, and Texas.

In Florida, the Partners Program is working to provide economically feasible options to help restore the longleaf pine/wiregrass ecosystem on private lands. Once established, longleaf pine offers drought, insect, disease, and fire resistance which can lead to greater survival and higher economic return. To reduce restoration costs, the Partners Program purchased a seed harvester for use within the State to allow landowners and conservation groups to harvest their own wiregrass seed. Costs to restore longleaf pine/wiregrass typically range from \$175 to \$350 per acre.



Longleaf pine stand.

Threatened and Endangered Species

Florida is home to many federally listed plant and animal species. The Partners Program works with landowners to develop projects that restore habitat used by threatened and endangered species, to help with the recovery efforts for these species.

The Partners Program is currently working together with regulators and county officials to develop a "county-wide safe harbor agreement" in Volusia County, Florida. The safe harbor is designed to provide regulatory certainty to landowners who implement management practices that provide benefits to the threatened Florida scrub-jay.

Exotic Species

Florida faces unique challenges with respect to invasive, exotic species. Australian pines have devastated beach plant communities, Brazilian pepper now infests over 1 million acres in the State, malaleuca has displaced native vegetation in nearly

400,000 acres of wetlands, and hydrilla has displaced native aquatic vegetation in over 50 percent of Florida's water bodies (Langeland *et al.* 1998).

The Partners Program is working with private landowners and local interest groups to develop initiatives to raise awareness of invasive, exotic species and to develop programs to implement treatment programs. Costs associated with the treatment of invasive species typically range from \$50 to \$1,200 acre.

Partners

Archbold Biological Station
Audubon Corkscrew Swamp Sanctuary
Broward County Department of Planning and Natural Resources
Charlotte Harbor and Environmental Center
Calusa Nature Center
City of Sanibel
Charlotte County
City of Cape Coral
Conservancy of SW Florida
Everglades Wildlife Sanctuary
Florida Inland Navigation District
Florida Audubon Florida Keys Restoration Fund
Florida Department of Environmental Conservation
Johnathan Dickinson State Park
Lee County Division of Parks and Recreation
Martin County Division of Parks and Recreation
National Oceanic and Atmospheric Administration
Pine Ridge Sanctuary
City of Pompano Beach
Rookery Bay Estuarine Research Reserve
Sanibel Captiva Conservation Foundation
The Nature Conservancy of the Florida Keys
Natural Resource Conservation Service
St. Johns River Water Management District
Suwannee River Water Management District
Southwest Florida Water Management District
Brevard County
Volusia County
Manatee County Board of County Commissioners
Manatee County Cooperative Extension Service
Florida Department of Environmental Protection
Florida Fish and Wildlife Conservation Commission
Florida Division of Forestry
Florida Department of Agriculture
Florida Coastal Zone Management Program
Sarasota Bay National Estuary Program
Florida Bureau of Historic Preservation

Florida Institute of Saltwater Heritage
University of Florida
Cortez Historical Society
The Nature Conservancy
Florida's Legacy Program
Savannah River Ecology Lab
Seminole Indian Tribe
Georgia Soil and Water Conservation
South Walton Sea Turtle Watch
Choctawhatchee Watershed Authority
Yellow Watershed Authority
Pea Watershed Authority
Apalachicola Bay and River Keepers Inc.
Cape San Blas Taxpayers Association
Water Resources Partnership Inc.
St. Andrew Resource Management Association

Accomplishments

The Partners Program has been active in Florida since 1996. Since that time partnerships between private landowners and the U.S. Fish and Wildlife Service have achieved the following results:

- 2,579 acres of projects to improve sandhill scrub habitat for the Florida scrub-jay.
- 828 acres of longleaf pine planted.
- 642 acres in other upland habitat projects.
- 5,123 acres in wetland restoration projects.
- 6.5 miles (954-acre) of shoreline restoration project at Lake George located on the St. Johns River.
- 23.2 miles of riparian buffer and stream bank restoration projects.
- 56.5 acres in aquatic restoration projects.
- treatment of 1,664 acres of invasive/exotic species in conjunction with wetland and upland restoration projects.

Future Needs

- Restore, enhance, and protect the Suwannee River, its tributaries, and the wetlands located within its drainage basin.
- Restore/enhance approximately 200,000 acres of sandhill scrub habitat.
- Work with private landowners who want to voluntarily restore longleaf pine/wiregrass habitat on private lands within the 4 million acres of historically supported longleaf pine forests.
- Restore or enhance 6,000 miles of in-stream and riparian habitat.
- Restore native habitats degraded by invasive species. Australian pine dominates beach plant communities, Brazilian pepper infests over 1 million acres, malaleuca is found in nearly 400,000 acres of wetlands and hydrilla has replaced native aquatic vegetation in over half of all of Florida's lakes and ponds.
- Work with private landowners, interest groups, and local governments across the State of Florida to eradicate invasive/exotic species on private land.
- Establish conservation partnerships with all water management districts in Florida to deliver technical and financial assistance opportunities to private landowners.



Before restoration: In Florida, exotic plant species form dense impenetrable tangles which compete with other plants and radically degrade native habitats.



During restoration: Fire, which is a natural component of the ecosystem in Florida, is used to remove exotics and restore native wildlife habitat.



After restoration: Native plant communities are recovering after burning, and wildlife are feeding in the recently restored habitat.

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